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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MCGARRY BAIR PC 32 Market Ave. SW SUITE 500 GRAND RAPIDS, MI 49503			EXAMINER CONSILVIO, MARK J	
			ART UNIT 2872	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,447

Applicant(s)

BLAKEMAN ET AL.

Examiner

Mark Consilvio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 6-15, 17-28 and 30-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6-15, 17-28 and 30-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/24/2007 has been entered.

Status of Claims

Claims 2-4, 6-15, 17-28, and 30-37 were previously rejected and claims 3, 6, 7, 11-15, 17, 18, 20, 24-28, 30, 31, 33, and 37 are newly amended. Claims 5, 16, and 29 have been cancelled. Claims 2-4, 6-15, 17-28, and 30-37 are currently pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Mittlehauser (GB Patent Application Publication No. 2 096 956) (herein Mittlehauser).

With respect to claim 37, Mittlehauser discloses a vehicular mirror assembly comprising: a mounting frame (7) adapted to be coupled to a vehicle (2); a mirror shell (12) mounted to the mounting frame and comprising a rearwardly-facing (10) opening; a reflective element (3) mounted within the mirror shell in register with the rearwardly facing opening; a tilt actuator (4) mounted to the mounting frame, and to the reflective element for tiltably actuating the reflective element; and at least one connector (13) joining the mounting frame and the mirror shell; wherein the at least one connector comprises a generally cylindrical neck portion having a neck diameter (implied by Mittlehauser on p. 1 and lines 72-78 and 109-115), transitioning to a somewhat cylindrical bulb end portion having a bulb diameter greater than the neck diameter (as seen in fig. 1), and an aperture (15) having a diameter essentially equal to the neck diameter and smaller than the bulb diameter for slidable contact of the neck portion with the aperture, to provide a columnar snap-fit connection when the somewhat cylindrical bulb end portion is inserted through the aperture, which securely retains the mounting frame to the mirror shell (figs. 1 and 2). It is noted that only two shapes (i.e. generally cylindrical and generally rectangular) are conventionally used in the prior art for snap-fit mounting studs. The teaching by Mittlehauser that the "buttons" having *a* diameter are insertable into an aperture of smaller diameter and may bend relative to *the* center would have implied to one of ordinary skill the "buttons" are at least generally cylindrical since only a cylindrical arrangement would be consistent with a single diameter, a single center, and the drawings.

With respect to claim 2, Mittlehauser discloses the aperture (15) on the mounting frame (7) and a stud (14) on the mirror shell (12) wherein the stud is adapted to be snap-fit within the aperture to securely mount the stud within the aperture (fig. 1).

With respect to claim 3, Mittlehauser discloses the stud (14) comprises a bulb end portion (end of 14) having the bulb diameter and a neck portion (narrow part of 14) having the neck diameter smaller than the bulb diameter, the neck portion adapted for snap fit communication of the bulb end portion with the aperture (fig. 1).

With respect to claim 4, Mittlehauser discloses a vehicular mirror assembly wherein the stud (14) is integrally formed with the mirror shell (12) (fig. 1 and p. 1, lines 72-78).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 6-10, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al. (US Patent Application Publication No. 2002/0130239) in view of Kurz, Jr. (US Patent No. 3,843,236).

With respect to claim 37, Ishigami discloses a vehicular mirror assembly comprising: a mounting frame (12) adapted to be coupled to a vehicle; a mirror shell (28) mounted to the mounting frame and comprising a rearwardly-facing opening; a reflective element (not shown) mounted within the mirror shell in register with the rearwardly facing opening; a tilt actuator (16) mounted to the mounting frame, and to the reflective element for tiltably actuating the reflective element (par. 71); and at least one connector (64) joining the mounting frame and the mirror shell; wherein the at least one connector comprises a neck portion (66) having a neck

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diameter, transitioning to a bulb end portion (end of 66) having a bulb diameter greater than the neck diameter, and an aperture (24) having a diameter essentially equal to the neck diameter and smaller than the bulb diameter for slidable contact of the neck portion with the aperture, to provide a columnar snap-fit connection which securely retains the mounting frame to the mirror shell (figs. 1 and 10). Ishigami does not expressly disclose that neck portion is generally cylindrical or that the bulb end portion is somewhat cylindrical. However, cylindrical snap-fit connectors were known in the prior art to be generally equivalent means as exemplified by Kurz. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to replace the rectangular connectors of Ishigami with cylindrical connectors because the substitution of one known element for another known element would have yielded predictable results to one of ordinary skill in the art. See *In re Fout*, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982) and *In re Siebentritt*, 54 CCPA 1083, 372 F.2d 566, 152 USPQ 618 (1967).

With respect to claim 2, Ishigami discloses the aperture (24) on the mounting frame (12) and a stud (i.e. a second hook 64) on the mirror shell wherein the stud is adapted to be snap-fit within the aperture to securely mount the stud within the aperture (fig. 10).

With respect to claim 3, the combination of Ishigami and Kurz suggests the stud comprises a somewhat cylindrical bulb end portion having the bulb diameter and a neck portion having a generally cylindrical neck diameter smaller than the bulb diameter, the neck portion adapted for snap fit communication of the bulb portion with the aperture.

With respect to claim 4, Ishigami discloses a vehicular mirror assembly wherein the stud (64) is integrally formed with the mounting frame (fig. 10).

With respect to claims 6-9, the combination of Ishigami and Kurz suggests the invention as set forth above. Further, Kurz teaches a generally cylindrical mounting stud (64) for a mirror comprises a generally cylindrical neck portion (70) and a somewhat cylindrical bulb end (66), the neck having a smaller diameter than the diameter of the bulb end. Kurz also teaches the bulb end comprises an annular face (72) having approximately a 45 degree bevel, the neck portion comprises a truncated (inner or more roughly the outer) cone inclined approximately 10 degrees and the stud comprises a bore (78) extending coaxially therethrough (fig. 5). [Note: Though the exact angles are of the not expressly disclosed, the drawings may be relied upon for the approximate angles. Further, applicant is advised that no reference plane is given for these angles and therefore cannot generally distinguish over the prior art.] Therefore, the replacement of the connector of Ishigami with a connector of Kurz as stated *supra* suggests all the claimed features. Additionally, regarding claim 8, though both Ishigami and Kurz teach apertures with a wall to accept their respective mounting studs, neither teaches the aperture wall inclined. However, one of ordinary skill would have understood that slightly inclining the aperture wall would allow the stud to be inserted more easily and would reduce vibrations when matched to the incline of the neck portion. Further still, it has long been held that changes in shape or dimension are not sufficient to distinguish over the prior art absent persuasive evidence that the particular configuration of the claimed invention is significant. See *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) and *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984) cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). Applicant's specification and remarks provide no such evidence. Therefore, absent a showing of criticality, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide

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a generally cylindrical mounting stud like that of Kurz to the assembly of Ishigami and arrive at the claimed invention for all the reasons stated *supra*.

With respect to claim 10, Ishigami discloses a vehicular mirror assembly wherein at least one of the mounting frame, the mirror shell, and the tilt actuator is made from a material selected from the group consisting of: glass filled nylon, acetal, polyester, and ABS plastic (par. 12).

Claims 11-15 and 17-28 and 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al. (US Patent Application Publication No. 2002/0130239) in view of Brouwer (WIPO Publication No. 00/96985).

With respect to claims 11 and 24, Ishigami discloses a snap fit assembly for interconnecting selected components of a vehicular mirror assembly, the components comprising a mirror housing (28) adapted to enclose a mounting frame (12) and a tilt actuator assembly (16); and having at least one of a first mounting stud (64), the mounting frame having at least one of a first mounting aperture (24), the snap-fit assembly comprising: wherein the at least one of a first mounting stud comprising a first bulb end portion (i.e. end of 64) having a first bulb diameter and a neck portion (66) having a first neck diameter smaller than the first bulb diameter, the neck diameter being essentially equal to the first aperture diameter for snap fit slidable contact of the neck portion with the at least one of the first mounting aperture and the bulb end portion adapted for supporting communication with the mounting frame (figs. 1 and 10). Ishigami does not expressly disclose that neck portion is generally cylindrical or that the bulb end portion is somewhat cylindrical and Ishigami is silent on how the tilt actuator is mounted and thus lacks specific mention of a second generally cylindrical mounting stud of the mounting frame and the

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tilt actuator assembly having a second mounting aperture. However, cylindrical snap-fit connectors were known in the prior art to be generally equivalent means as exemplified by Kurz. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to replace the rectangular connectors of Ishigami with cylindrical connectors because the substitution of one known element for another known element would have yielded predictable results to one of ordinary skill in the art. See *In re Fout*, 675 F.2d 297, 301, 213 USPQ 532, 536 (CCPA 1982) and *In re Siebentritt*, 54 CCPA 1083, 372 F.2d 566, 152 USPQ 618 (1967). Further, the mounting of tilt actuators to mounting frames is well known in the prior art. Though actuator assemblies are conventionally fastened via mounting screws, snap-fit connections are also known in the prior art. For example, Brouwer discloses a tilt actuator assembly for a rearview mirror mounted to a mounting frame by a snap-fit connection. At the time of invention, it would have been obvious to one of ordinary skill in the art to use snap-fit mounting means (such as those taught by Kurz) as suggested by Brouwer to mount the tilt actuator to the mounting frame in the Ishigami mirror and thereby arrive at the claimed invention. The motivation for doing this would have been to provide a low cost, easy-to-assemble mirror that does not require additional tools.

With respect to claims 12 and 25, the combination of Ishigami, Kurz and Brouwer suggests the first generally cylindrical mounting stud is integrally attached to the mirror housing.

With respect to claims 13 and 26, the combination of Ishigami, Kurz and Brouwer suggests a second generally cylindrical mounting stud is integrally attached to the mounting frame.

With respect to claims 14 and 27, the combination of Ishigami, Kurz and Brouwer suggests the first bulb end portion of the first generally cylindrical mounting stud that is rigidly attached to the mirror housing.

With respect to claims 15 and 28, the combination of Ishigami, Kurz and Brouwer suggests the second bulb end portion of the second generally cylindrical mounting stud is rigidly attached to the mounting frame.

With respect to claims 17-20 and 30-33, the combination of Ishigami, Kurz, and Brouwer discloses or suggests all the limitations of claim 11 as stated *supra*. Further, Kurz teaches a generally cylindrical mounting stud (64) for a mirror comprises a generally cylindrical neck portion (70) and a somewhat cylindrical bulb end (66), the neck having a smaller diameter than the diameter of the bulb end. Kurz also teaches the bulb end comprises an annular face (72) having approximately a 45 degree bevel, the neck portion comprises a truncated (inner or more roughly the outer) cone inclined approximately 10 degrees and the stud comprises a bore (78) extending coaxially therethrough (fig. 5). [Note: Though the exact angles are of the not expressly disclosed, the drawings may be relied upon for the approximate angles. Further, applicant is advised that no reference plane is given for these angles and therefore cannot generally distinguish over the prior art.] Therefore, the replacement of the connector of Ishigami with a connector of Kurz as stated *supra* suggests all the claimed features. Additionally, regarding claims 19 and 32, though both Ishigami and Kurz teach apertures with a wall to accept their respective mounting studs, neither teaches the aperture wall inclined. However, one of ordinary skill would have understood that slightly inclining the aperture wall would allow the stud to be inserted more easily and would reduce vibrations when matched to the incline of the

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neck portion. Further still, it has long been held that changes in shape or dimension are not sufficient to distinguish over the prior art absent persuasive evidence that the particular configuration of the claimed invention is significant. See *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) and *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984) cert. denied, 469 U.S. 830, 225 USPQ 232 (1984). Applicant's specification and remarks provide no such evidence. Therefore, absent a showing of criticality, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a generally cylindrical mounting stud like that of Kurz to the assembly of Ishigami and arrive at the claimed invention for all the reasons stated *supra*.

With respect to claims 21, 22, 34, and 35, Ishigami discloses parts of the mirror to be made of ABS plastic but the the combination of Ishigami, Kurz and Brouwer lacks specific suggestion of the mounting bracket comprising glass-filled nylon, or polyester, or the housing comprising acetal. However, these materials are well known in the prior art. At the time of invention, it would have been obvious to one of ordinary skill in the art to form the requisite elements out of the following materials: glass-filled nylon, acetal, and polyester since it has been held that the selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). One of ordinary skill would have been motivated to do this because of material availability, cost of materials, or desirable inherent properties such as thermal expansion, resilience, durability, etc....

With respect to claims 23 and 36, the combination does not expressly disclose at least one of the mirror housing and the mounting bracket are injection molded. However, injection molding is a well-known method of forming mirror assembly elements. Further, when the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process, the claim is unpatentable even though the prior product was made by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP §2113.

Response to Arguments

Applicant's arguments filed 10/24/2007 have been fully considered but they are not persuasive.

In response to applicant's argument that Kurz is not sufficient to provide a prima facie case of obviousness, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The Kurz reference has been cited to evidence that cylindrical snap-fit mounting connectors are known in the prior art. It is erroneous and unnecessary to suggest that the exact configuration shown by Kurz needs to somehow fit perfectly into the invention of Ishigami. Likewise, further modifications concerning

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limiting features such as an annular face and inclined wall do not affect the propriety of the rejection.

In response to applicant's argument that the references fail to teach or suggest certain claimed limitations, it is noted that the limitation(s) upon which applicant relies (i.e., particular angles of the annular face and inclined cone) must be given their broadest reasonable construction as would be interpreted by one of ordinary skill in the art. *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). See MPEP § 2111 - § 2116.01, for additional case law relevant to claim interpretation. As stated *supra*, though the exact angles are of the not expressly disclosed, the drawings may be relied upon for the approximate angles. Further, applicant is advised that no reference plane is given for these angles and therefore cannot generally distinguish over the prior art.

In response to applicant's arguments that the examiner has not made a proper *prima facie* case of obviousness with respect to all claims, it is noted that the general allegation that the rationale for such combinations is "contrived" or "inadequate" is insufficient to rebut the propriety of the rejection. Differences in the prior art or alternative ways to combine the prior art are only relevant in terms of the preponderance of all evidence. Thus, the assertion of singular instances of how the prior art might be combined to create materially different combination fails to address the prior art as a whole. Any further unsubstantiated reasoning is irrelevant.

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Applicant's further arguments with respect to claims 2-4, 6-15, 17-28, and 30-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Thursday, 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on (571) 272- 2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MC
1/4/2008


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